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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/801,539

03/17/2004

Shin-Seng Lin

VER 131

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7590

07/12/2006

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EXAMINER

PHILLIPS, FORREST M

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/801,539	LIN, SHIN-SENG	
	Examiner	Art Unit	
	Forrest M. Phillips	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/17/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the member formed of sound absorbing material must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin-Seng (US4792014) in view of Taniguchi (US 4331213) .

With respect to claim 1 Shin-Seng discloses a tailpipe of an automotive vehicle comprising a front tube (1 in figure 1) including one flared end (11 in figure 1) and an intermediate neck (10 in figure 1) having a plurality of rows of apertures (12 in figure 1) wherein one flared end is coupled to a muffler (S in figure 1); a rear tube (3 in figure 1) having a flared end (13 in figure 1); an outer tube (2 in figure 1) surrounding a rear portion of the front tube (see figure 1) and the whole rear tube, the outer tube including a flared front end (21 in figure 1) a cylindrical section, and a rear section having an inwardly extending rim at an opening thereof (23 in figure 1); and a plurality of twisted blades (4 in figure 1 refer to figure 3 for best illustration thereof) equally spaced apart around the rear tube and connected to the front rear and outer tubes (refer to figure 1) (column 2 lines 15-30), wherein a stream of exhaust from the muffler entering into the neck is divided into a first component flowing through the rear tube, and a second component flowing into a space between the neck and the outer tube through the apertures, the second component is mixed with air drawn from the front end of the outer tube to form a third component, the third component flows to a rear of the outer tube after being baffled by the blades and passing a plurality of channels each between two

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adjacent blades to form a fourth component in a form of whirlwind, and a fifth component in a form of whirlwind is formed by mixing the fourth component with the first component after leaving the tailpipe (column 2 lines 35-66).

Shin-Seng does not expressly disclose the front tube is flared on both ends, but rather only on the forward end, or that the outer tube has an enlarged section.

Taniguchi discloses the front tube having a flared end on the rearward end, (figure 1) and the tube (1 in figure 1) covering his swirl inducing elements is expanded enough to cover the swirl inducing elements (2 in figure 2).

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Taniguchi of having a flared rearward end and an outer pipe that was enlarged to house the swirl inducing elements, with the tail pipe structure of Shin-Seng.

The motivation for doing so would have been to allow a smoother flow from the front pipe into the rearward pipe in the case of the flared end and for aesthetic purposes in the case of the outer pipe following the contours of the interior elements, in the form of the expanded section of the outer pipe..

With respect to claim 2 Taniguchi further discloses wherein one end of the front tube comprises a plurality of lengthwise slits. (Figure 1)

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine these lengthwise slits as taught by Taniguchi and known in the art.

The motivation for doing so would have been to allow the pipe to more easily form around different pipes of mufflers.

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With respect to claim 3 Shin-Seng further discloses wherein each blade comprises a plurality of apertures (42 in figure 1).

With respect to claims 4-6 Shin-Seng in view of Taniguchi discloses the claimed invention except for specific lengths of tubes. It has been held that a change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

With respect to claim 7 Shin-Seng further discloses further comprising a member formed of sound absorbing material on a cylindrical surface ^{of} the outer tube (column 3 lines 25-29).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kim (US6554100); Chen (US 6385967) DeVane(US4667770).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Forrest M. Phillips whose telephone number is 5712729020. The examiner can normally be reached on Monday through Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on 5712721988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FP


LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER